



# TS-1888 ABRASION TESTER INSTRUCTION MANUAL

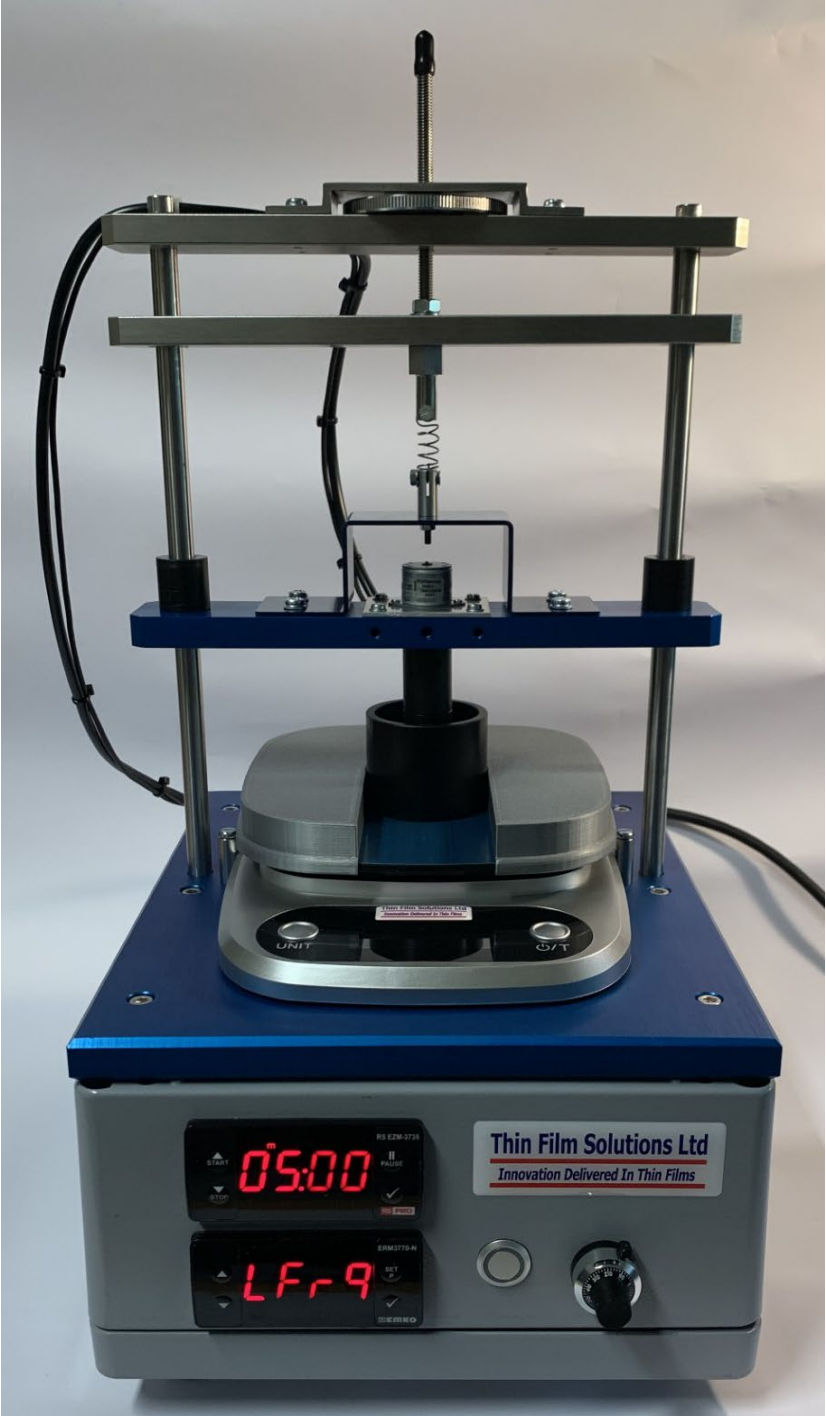
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# 1. INTRODUCTION

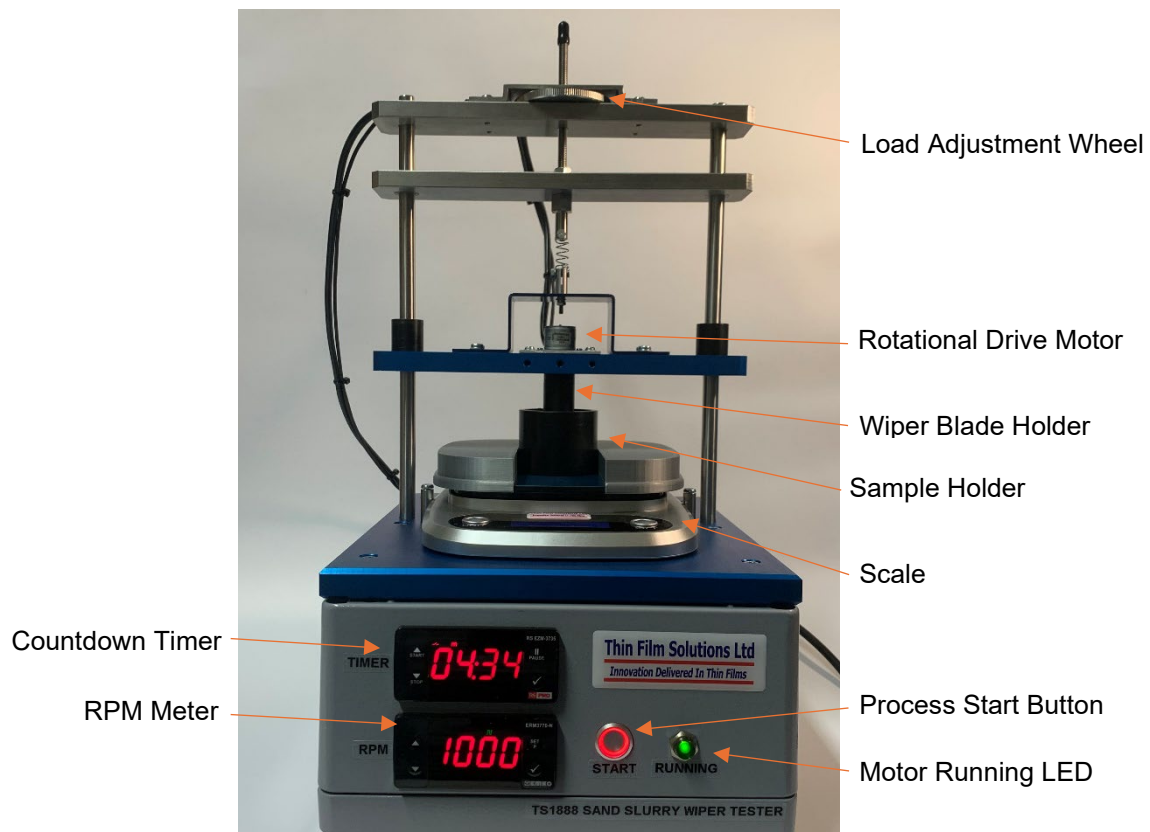
The TS-1888 (P5.4.3) test checks the durability of, primarily DLC coatings. The TS-1888 tester can also be used for durability test of other hard coatings. Although TS-1888 is a military standard it is widely used throughout the optics industry as a qualitative evaluation of abrasion resistance of optical coatings.

The TS-1888 test subjects the samples to 5 minutes of wiping, with a loading force of 20 grams. Using a mixture of sand (DEF STAN 07-55 Type C (1cm<sup>3</sup>)) and water (10ml). The ratio of water and sand is 10ml of water and 1cm<sup>3</sup> of sand. The rotational speed of the wiper is 1000RPM.

After the test if no significant signs of visible wear are seen, then the sample is deemed to have passed the test.

## OVERVIEW

### 2.1 Overview



## 2.2 Front View



## 2.3 Rear View



## 3.0 Operation

### 3.1 Scale Operation



3.1.1 To power on the scales press the power button (ON/T) in the right of the scales. This button is also used to tare (zero) the scale. Pressing this once will turn the scales on and then pressing and holding the button for 3 seconds or more will power off the scale. To zero/tare the scale press "T" briefly until the scales reads zero.

3.1.2 The "UNIT" button changes the scales range and measurements. This should always be set to "g"

3.1.3 The scales have a built-in timer that turns the scale off after a preset time. The range of the timer is 1-5 minutes before the power is turned off. The timing range can be changed by pressing and holding the UNIT button. The display will change from the main display and the characters "ru5" will be displayed the default time. By successive pressing of the button the display will scroll through the times "ru0" to "ru5", 1 through 5, will change the scale power on time between 1 and 5 minutes. When "ru0" is displayed the scales remains permanently on until the power button is pressed and held until the power is turned on again. When the power is turned on again the timer is reset to 5minutes.